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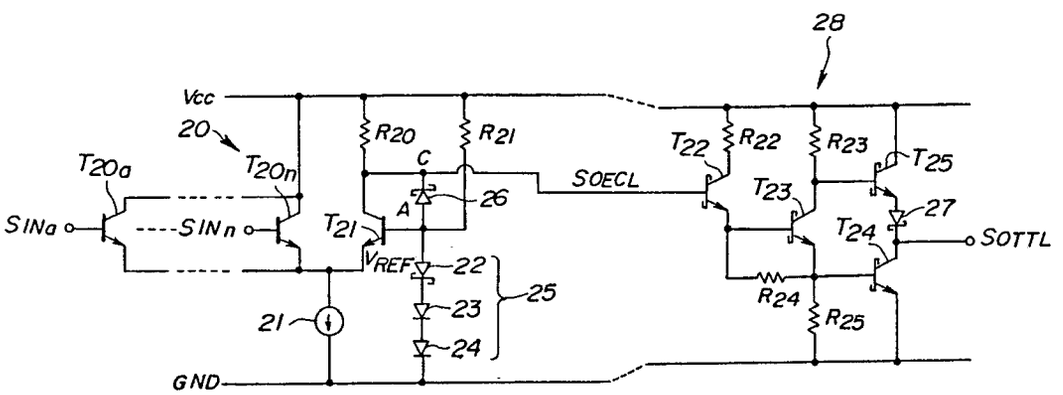
(54) Integrated circuit having level converting circuit.

(57) An integrated circuit for converting a first signal having an emitter coupled logic level into a second signal having a transistor-transistor logic level, comprises an ECL circuit (10, 20, 20a) including emitter coupled first and second transistors (T10, T20a-T20n; T11, T21), where the first transistor has a base for receiving the first signal, a reference voltage applying part (13, 25, 25a, 32) for applying a reference voltage to a base of the second transistor, a Schottky barrier diode (14, 26) having an anode coupled to the base of the second transistor and a cathode coupled to a collector of the second transistor, and a TTL circuit (12, 28, 30) for outputting the second signal in response to a signal received from the collector of the second transistor.

FIG.4



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EUROPEAN SEARCH REPORT

Application Number

EP 89 11 1186

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X	IBM TECHNICAL DISCLOSURE BULLETIN, vol. 18, no. 9, 9th FEbruary 1976, page 2881, New York, US; Y.R. GOPALAKRISHNA et al.: "High impedance off-chip current switch receiver" * Fig.; page 2881 *	1,2,4	H 03 K 19/017
A	IDEM	3	
X	IBM TECHNICAL DISCLOSURE BULLETIN, vol. 22, no. 11, April 198, pages 4922-4924, New York, US; T. KWAP et at.: "Current switch receiver" * Figure 1; page 4922, line 1 - page 4923, line 8 *	1,2,4	
A	IDEM	3,7	
A	FR-A-2 354 001 (MOTOROLA INC.) * Figures 1,2; page 3, line 31 - page 6, line 6 *	1-4,6-8	
A	US-A-3 974 402 (FETT et al.) * Figures 1,2; column 4, lines 12-46 *	1	TECHNICAL FIELDS SEARCHED (Int. Cl.5) H 03 K
A	FR-A-1 581 258 (TOKYO SHIBAURA) * Figures 2,4c; page 3, lines 14-17; page 4, lines 38,41; page 9, line 39 - page 10, line 5 *	8	
A	US-A-4 249 091 (YAMAGIWA) * Figure 4; column 8, line 59 - column 10, line 68 *	8,9	

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	23-04-1990	FEUER F.S.

CATEGORY OF CITED DOCUMENTS

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